| | Application No. | Applicant(s) |
|--|----------------------------|------------------------------|
| Notice of Allowability | | |
| | 10/808,060 Examiner | LI ET AL. |
| | - Examiner | |
| | Deborah Malamud | 3766 |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. | | |
| 1. This communication is responsive to <u>3/24/04</u> . | | |
| 2. The allowed claim(s) is/are <u>1-36</u> . | | |
| 3. ∠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☑ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have been received. | | |
| 2. Certified copies of the priority documents have been received in Application No | | |
| 3. Copies of the certified copies of the priority documents have been received in this national stage application from the | | |
| International Bureau (PCT Rule 17.2(a)). | | |
| * Certified copies not received: | | |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | | |
| 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. | | |
| 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. | | |
| (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached | | |
| 1) hereto or 2) to Paper No./Mail Date | | |
| (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date | | |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). | | |
| 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. | | |
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| Attachment(s) 1. ☑ Notice of References Cited (PTO-892) | 5 Notice of Informal P | atent Application (PTO-152) |
| 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. ☑ Interview Summary | · · |
| | _ Paper No./Mail Da | te <u>1/27/06</u> . |
| Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 4/12/04,1/23/06 | 8), 7. ⊠ Examiner's Amendr | ment/Comment |
| 4. Examiner's Comment Regarding Requirement for Deposit | 8. 🛛 Examiner's Stateme | ent of Reasons for Allowance |
| of Biological Material | 9. | |
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

- 2. Authorization for this examiner's amendment was given in a telephone interview with Douglas Hamilton on 20 January 2006.
- 3. The application has been amended as follows:
 - In claim 26, line 1, "A device" was deleted and –An implantable cardiac
 rhythm device— was inserted.
 - In claim 27, line 1, "The device" was deleted and –The implantable cardiac device— was inserted.
 - In claim 28, line 1, "The device" was deleted and –The implantable cardiac device— was inserted.
 - In claim 29, line 1, "The device" was deleted and –The implantable cardiac device— was inserted.
 - In claim 30, line 1, "The device" was deleted and –The implantable cardiac device— was inserted.
 - In claim 31, line 1, "The device" was deleted and –The implantable cardiac device— was inserted.
 - In claim 32, line 1, "The device of claim 26" was deleted and –The implantable cardiac device of claim 27— was inserted.

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In claim 34, line 5, immediately after "housing; and wherein placing","
 "the" was deleted and -an— was inserted.

- In claim 34, line 6, immediately after "...external programmer", "relation to the displayed medical device includes placing the external programmer in" was deleted.
- 4. The following is an examiner's statement of reasons for allowance:
 With the changes made by the examiner with the authorization of the attorney,
 there is no prior art that includes all of the features of the claims. Namely, an
 implantable medical device that includes an inverted-f-shaped antenna on the
 exterior of the housing, and also a coating covering a portion of the housing and
 the antenna, is neither taught nor obvious at the time of the invention.

Planar antennas, and specifically planar inverted-f antennas (PIFA), are common in the art of RF communication. Portable radios such as disclosed by Sekine et al (U.S. 5,517,676) use inverted-f antennas for receiving and transmitting data via a feed line that connects to internal circuitry. Patch antennas such as those used by Villaseca et al (U.S. 6,240,317) and microstrip RF telemetry antennas such as those taught by Sun et al (U.S. 5,861,019) are used in implantable medical devices. However, at the time of the invention, it was not taught or obvious for an implantable medical device with a biocompatible coating to utilize an inverted-f antenna.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 4,851,855 to Tsukamoto et al, disclosing Planar antenna

U.S. 6,675,045 to Mass et al, disclosing Split-can dipole antenna for an implantable medical device

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Malamud whose telephone number is (571) 272-2106. The examiner can normally be reached on Monday-Friday, 8.00am-5.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

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Robert E Pezzuto

Supervisory Patent Examiner

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